California Department of Pesticide Regulation
Environmental Hazards Assessment Program
1020 N Street
Sacramento, CA 95814

STANDARD OPERATING PROCEDURE
Sample Tracking Procedures

KEY WORDS

Sample Tracking, Sample Tracking Database, Chain-of custody, Sample

APPROVALS

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1.0 INTRODUCTION

1.1 Purpose

This Standard Operating Procedure (SOP) discusses sample check-in and check-out procedures; the recording of chemistry data; sample disposal procedures; and the Sample Tracking Database.

1.2 Definitions

A **sample** is any environmental substance collected and analyzed for chemical content.

Chain-of-custody is a record describing in detail all pertinent information specific to each sample, including dates and signatures of persons handling the sample.

Sample Tracking Database is a relational database designed in Microsoft Access to trace a sample from the time it is checked into the storage facility until the sample is submitted to a laboratory for analysis or disposed of after a study is completed.

2.0 SAMPLE TRACKING

2.1 Sample Tracking Codes

Sample tracking codes are abbreviations for fields in the database that refer to specific information about each sample. The study number in combination with the sample number is identified as the key field and all information specific to the sample is referenced by the following codes back to the key field.

SAMPLE CODES:

P= Primary	R= Replicate	B= Backup	FB= Field Blank
* = Split	S= Spike	BG= Background	BM= Blank Matrix
A= Acidified	U= Unacidified	RB= Rinse Blank	

STORAGE LOCATION CODES refer to the storage location of each sample at the storage facility.

F= Fresno	R= Refrigerator	SRI 0= Sacramento Refrigerator #I 0
R= Riverside	F= Freezer	SFO7= Sacramento Freezer #07
S= Sacramento	A= Air Temp.	D= Deep Freeze
W= Warehouse	L= Lab	

SAMPLE TYPE CODES refer to the sample matrix collected.

FRU= Fruit	DVEG= Dislodgeable Vegetation	TWG= Twigs
SOI= Soil	SSS= Stainless Steel Sheets	EXT= Extract
WAT= Water	LOV= Lo-Vol	STD= Standard
VEG= Vegetation	HIV= Hi-Vol	SUR= Surrogate
SED= Sediment	FILT= Filtrate	TUR= Turf
TAN= Tank	KIM= Kimbie	SAN= Sand
AIR= Air	TRP= Air Cassettes	BRA= Branch

SAMPLE CONTAINER CODES refer to the type of container each sample is placed in during storage.

QMSJ= Quart Mason Jar	1 LAMBR= 1 Liter Amber Bottle
PMSJ= Pint Mason Jar	HPMSJR= Half Pint Mason Jar
PBAG= Plastic Bag	HIVJAR= Hi-Vol Jar
FOIL= Aluminum Sheets	P500mL= Plastic Bottle (500 mL)
CAS= Air Cassettes	1 LPC= 1 Liter Polycarb. Bottle
lLPP= 1 Liter Polyprop. Container	VIAL= Small Standard Vial

500mLPC= 500mL Polycarb. Container
250mLAMBR= 250mL Amber Bottle
500mLAMBR= 500mL Amber Bottle
500mLHDPP= 500mL High Density Polyprop.

LABORATORY CODES refer to the specific laboratory each sample is shipped to for analysis.

QUAN= Quanterra Laboratory	CDFA= CA Dept. of Food & Agr.
ATL= Aquatic Toxicology Lab	CDFG= CA Dept. of Fish & Game
FMC= FMC Corporation	ALTA= ALTA Analytical Laboratory
ZEN= Zeneca Ag Products	VAL= Valent Dublin Laboratory
APPL= Ag and Priority Pollut Labs	MOR= Morse Laboratories Inc.
NCL= North Coast Labs	UCD= University California Davis
FRES= Fresno Soils Lab	WSAC= W. Sacramento Soils Lab

ANALYSIS TYPE refers to the type of test method to be performed on each sample.

C= Chemical	F= Tracer	E= Elisa
0= Organic	P= pH	M= Moisture
T= Texture	B= Bulk Density	V= Various

2.2 Sample Check-in Procedures

All samples received at the storagefacility are immediately put in a refrigerator or freezer depending on the matrix specific storage requirements. The field crew fills out a two-part check-in sheet (Figure A) using the sample tracking codes listed in section 2.1.

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The check-in sheet must be complete in order to properly track environmental samples. The following is a description of each key component of the check-in sheet.

Project ID: The study number or name.
Date Received: The date the sample was received from the field crew.
Checked-in by: The initials of the person who fills out the check-in sheet.
Remarks: List any additional or neccessary information regarding the samples listed on the check-in sheet.
EHAP Sample No.: The number assigned to a labeled sampling container.
Sample Code: List sample code (Section 2.1 for codes).
Date Sample Collected: Note the sample collection date.
Sample Type: Specify the type of sample collected (Section 2.1).
Container Type: What the sample is stored in (Section 2.1).
Analysis Type: The type of analysis the sample is intended for (Section 2.1).
Analysis: List the type of chemical the sample is to be analyzed for.
Comment: Space provided for additional information regarding individual samples.
Date/Logged in by: The date and person who enters information into the Sample Tracking Database.
Storage Location: List where the sample is being stored (Section 2.1).

After the check-in sheet is completed, each field sample is compared against it's corresponding chain-of-custody (COC), then signed and dated by the sample custodian receiving the sample. The white and yellow copies of the each COC is removed and sent with it's correpsonding field sample to the laboratory. The pink copy is used to enter the information into the Sample Tracking Database. The pink copy is then sent to the Project Leader. Any remaining samples held at the storage facility are stored under thieir required storage conditions with the white and yellow copies of their corresponding COC's.

2.3 Sample Check-out Procedures

A two-part check-out sheet is filled out for any sample leaving the storage facility (Figure B). The check-out sheet must be complete in order to properly track environmental samples leaving the storage facility.

The check-out sheet is similar to the check-in sheet but differs in three components.

> **Date Delivered:** The date the sample is taken to the laboratory.
> **Checked-out by:** The initials of the person filling out and transporting the sample to the laboratory.
> **Laboratory Delivering to:** Specify the destination code for the sample scheduled for analysis (Section 2.1).

A pink copy of the check-out sheet, and white and yellow copy of each COC are sealed in a plastic bag and accompany samples transported to the laboratory. The samples are then placed in ice chests and cooled to their required temperatures using blue ice, wet ice or dry ice. Ice chests are sealed with tape and labelled with the date and inititals of the sample custodian using a permanent black marker. The white copy of the check-out sheet is retained by the QA/QC officer and is also used to enter information into the Sample Tracking Database.

2.4 Chemistry Results

After results are received from the laboratory, the laboratory sample number, extraction and analysis date for each sample are entered into the Sample Tracking Database using the appropriate Microsoft Access query.

2.5 Sample Disposal

After each study is completed and with the approval of the Project Leader, all remaining samples stored in the storage facility may be disposed of by the sample custodian. A two-part Sample Disposal Sheet is completed and includes information similar to the check-out sheet (Figure C). This information is then entered into the Sample Tracking Database using the appropriate Microsoft Access query. The white copy of the Sample Disposal Sheet is retained by the QA/QC officer while the yellow copy is used to enter the information into the database.

3.0 Sample Tracking Database

All the information reported on the check-in, check-out, chemistry result, and sample disposal sheets is entered in the Sample Tracking Database using tables in Microsoft Access. Queries, forms and reports are designed specifically for each study to access fields for summarizing data.

3.1 Computer Generated Backups

Daily and weekly backups are conducted using Norton software and a tape drive. Diskettes are also used as a source for daily backup of individual study files.

STATE OF CALIFORNIA

DEPARTMENT OF PESTICIDE REGULATION

ENVIRON. MONITOR. & PEST MGT.
SACRAMENTO SOILS LABORATORY
3971 COMMERCE DRIVE, SUITE D
WEST SACRAMENTO, CA 95691
(916) 322-3082

SAMPLE CHECK-IN SHEET
30-007 (4/90)

Today's Date: _____

Project ID (Study no.): _____

Logged in by: _____
(key data entry person)

Date Received: _____

Storage location: _____
(see # on outside of storage)

Checked- in by : _____

Remarks:

EHAP Sample No.	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comment

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(916) 322-3082

SAMPLE CHECK-OUT SHEET
30-008 (4/90)

Today's Date: _____

Project ID (Study no.): _____

Logged out by: _____
(key data entry person)

Date Delivered: _____

Storage location: _____
(see # on outside of storage)

Checked-out by: _____

Laboratory Delivering to: _____

Remarks:

EHAP Sample No.	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comment

California Dept. of Pesticide Regulation
Environmental Hazards Assessment Program
3971 Commerce Drive, Suite D
West Sacramento, CA 95691
(916)322-3082

Today's Date: _____

Sample Disposal Sheet

Project ID (Study no.): _____ Disposed by: _____

Date Disposed: _____ Storage location: _____

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Remarks:

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EHAP Sample #	Sample Code	EHAP Sample #	Sample Code	EHAP Sample #	Sample Code	EHAP Sample #	Sample Code